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=> display history all full

     (FILE 'USPAT' ENTERED AT 09:49:10 ON 21 JUN 1999)

     FILE 'USOCR' ENTERED AT 09:49:28 ON 21 JUN 1999
L1          1015 SEA RIVERBED# OR LAKEBED# OR PONDBED# OR CREEKBED# OR OCEA
NBE
                 D# OR OCEANFLOOR# OR WATERBED# OR WATERFLOOR# OR ((WATER O
R O
                 CEAN# OR RIVER# OR LAKE# OR POND# OR CREEK#)(5A)(BED# OR F
LOO
                 R#))
L2         10209 SEA PENETRAT?
L3             3 SEA (L2(5A)(DEPTH# OR DEEP?))(20A)L1
L4             1 SEA PRESSUR?(25A)(L2(20A)L1)
L5             4 SEA L3 OR L4

     FILE 'JPO' ENTERED AT 09:57:42 ON 21 JUN 1999
L6             1 SEA (L2(5A)(DEPTH# OR DEEP?))(20A)L1
L7             0 SEA PRESSUR?(25A)(L2(20A)L1)

     FILE 'EPO' ENTERED AT 09:58:41 ON 21 JUN 1999
L8             3 SEA (L2(5A)(DEPTH# OR DEEP?))(20A)L1
L9             0 SEA PRESSUR?(25A)(L2(20A)L1)

     FILE 'USPAT' ENTERED AT 10:01:25 ON 21 JUN 1999
L10           17 SEA (L2(5A)(DEPTH# OR DEEP?))(20A)L1
L11           28 SEA PRESSUR?(25A)(L2(20A)L1)
L12            4 SEA L10(L)L11
L13          713 SEA (G01N 3/40,42,48 OR E02D 1/00)/IPC OR 73/84,784,12.01,
170
                 .32/CCLS
L14            1 SEA L10 AND L13
L15            0 SEA L11 AND L13
L16            6 SEA E02D 1/00/IPC

     FILE 'JPO' ENTERED AT 10:16:30 ON 21 JUN 1999
L17          235 SEA E02D 1/00/IPC

     FILE 'EPO' ENTERED AT 10:16:57 ON 21 JUN 1999
L18           42 SEA E02D 1/00/IPC

     FILE 'USPAT' ENTERED AT 10:17:05 ON 21 JUN 1999
L19          406 SEA E21B 49/00/IPC
L20            0 SEA L10 AND L19
L21            0 SEA L11 AND L19


     FILE USPAT
       * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
       *          U. S.   P A T E N T   T E X T   F I L E              *
       *                                                               *
       *  THE WEEKLY PATENT TEXT AND IMAGE DATA IS CURRENT             *
       *  THROUGH June 15,1999.                                      *
       *                                                               *
       *                                                               *
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FILE USOCR

FILE JPO

* *
* G P I *
* J A P A N E S E P A T E N T A B S T R A C T S *
* *
* THE FILE IS CURRENT THROUGH DECEMBER 31, 1998. *
* *

FILE EPO

* *
* G P I *
* E U R O P E A N P A T E N T A B S T R A C T S *
* *

=> d l12 1-4 ; d l12 1-4 kwic ; d l14 ; d l14 kwic

1. 4,907,307, Mar. 13, 1990, Support structure; David A. Weitzler, 5/665, 672, 682, 706 [IMAGE AVAILABLE]

2. 4,905,623, Mar. 6, 1990, Support structure for use with a fluid medium; David A. Weitzler, 114/264, 266; 405/71 [IMAGE AVAILABLE]

3. 4,575,282, Mar. 11, 1986, System for driving open end pipe piles on the ocean floor using pneumatic evacuation and existing hydrostatic pressure; James H. Pardue, Sr., et al., 405/228; 114/296; 405/195.1, 224, 232 [IMAGE AVAILABLE]

4. 4,217,709, Aug. 19, 1980, Submarine sand sampler; Frederick M. Casciano, 37/308, 309, 322, 323, 335 [IMAGE AVAILABLE]

37/308

US PAT NO: 4,907,307 [IMAGE AVAILABLE] L12: 1 of 4

SUMMARY:

BSUM(4)

When . . . inner water's natural wave and hence sea-sickness producing surface tension and secondly, by supplementing the support of a uniform inner **pressure** near **deeply penetrated** areas with a binding tangential friction between the taut skin and one's body. Other disadvantages of a **waterbed** include requirements for sturdy structure to support their massive filled weight and for electric heaters which can warm their otherwise. . .

US PAT NO: 4,905,623 [IMAGE AVAILABLE] L12: 2 of 4

SUMMARY:

BSUM(4)

When . . . inner water's natural wave and hence sea-sickness producing surface tension and secondly, by supplementing the support of a uniform inner **pressure** near **deeply penetrated** areas with a binding tangential friction between the taut skin and one's body. Other disadvantages of a **waterbed** include requirements for sturdy structure to support their massive filled weight and for electric heaters which can

warm their otherwise [redacted].

US PAT NO: 4,575,282 [IMAGE AVAILABLE] L12: 3 of 4

DETDESC:

DETD(26)

In . . . weight of the pile assembly causes the lower end of the pile assembly to make an initial penetration of the **ocean floor** 61. The **depth** of the initial **penetration** will depend on a number of factors, including the weight of the pile assembly, the strength of the soils in. . .

DETDESC:

DETD(30)

In . . . the outside skin friction on the pipe pile 1 below the ocean floor 61, the pipe pile 1 begins to **penetrate** the ocean floor 61 further. As pipe pile 1 **penetrates** the **ocean floor** 61, diaphragm 2 remains in a relatively stationary position. Thus, diaphragm 2 begins to slide axially up through the interior of pipe pile 1. The **pressure** differential may not be reduced by sea water 58 entering the interior of the pile assembly. The one-way valve in. . . 58 on the exterior of the pile assembly from flowing into the interior of the pile assembly to reduce the **pressure** differential across pile cap 6. The soils within the **ocean floor** 61 are prevented from entering the lower portion of the pile assembly because of the initial **penetration** of the pile assembly and because of the weight of the drilling mud 60 on top of diaphragm 2.

DETDESC:

DETD(33)

The first stage of **penetration** has forced the pipe pile 1 a sufficient depth into the **ocean floor** 61 so as to prevent "piping". "Piping" is the rapid movement of soil and water from an area of high **pressure** outside of the pile on the ocean floor to an area of lower **pressure** within the pile. For piping to occur, soils outside the pipe pile must shear in a column from the **ocean floor** to the pile tip. This type of soil failure is resisted by the full shear strength of the soils involved. **Penetration** by the pile is resisted by the re-molded shear strength of the soils adjacent to the outside surface of the. . .

DETDESC:

DETD(35)

In . . . within the pile assembly that developed in Step 6 will also develop during Step 11. During Step 11, this over **pressure** is resisted by the submerged weight of the pile and the friction between the outside skin of pipe pile 1 and the soil beneath the **ocean floor** 61 developed during the first stage of **penetration**.

US PAT NO: 4,217,709 [IMAGE AVAILABLE] L12: 4 of 4

DETDESC:

DETD(2)

Referring . . . 65 comprises cutting jets 42 which circumscribes outer conduit 2. Cutting jets 42 comprise one sixteenth diameter holes

which allow **pressuri**[redacted]**luid** to emanate from outer co**nduit** 2. This fluid assists in exc[redacted]**g** ocean sediment allowing s[redacted] 1 to **penetrate** the **ocean floor**. Sampler head 65 has lateral openings 46 which entrains sand into said suction nozzle 44. Suction nozzle 44 has sharpened. . .

DETDESC:

DETD(4)

A . . . transmitted to a readout on the surface vessel. The readout shows the length of the sampler 1 still above the **ocean floor** and therefore, by subtraction the **depth** of **penetration**. Electric cable 24 is connected to transducer 6. Extending above the top of outer conduit 2 is the top of. . .

DETDESC:

DETD(18)

Cutting jets 42 circumbscribe the lower end of outer conduit 2. Cutting jets emit a continuous stream of **pressurized** water against ocean sediment loosening sediment for easier **penetration** of the suction nozzle into the **ocean floor**.

1. 4,186,373, Jan. 29, 1980, System for measuring in situ acoustic energy properties of ocean floor soils; John R. Thompson, 367/131; **73/170.32**, 599; 181/108, 139; 367/15, 134 [IMAGE AVAILABLE]

170.32

US PAT NO: 4,186,373 [IMAGE AVAILABLE] L14: 1 of 1
US-CL-CURRENT: 367/131; **73/170.32**, 599; 181/108, 139; 367/15, 134

DETDESC:

DETD(18)

In . . . for a permanent recording of the apparent frequency change (i.e., doppler) versus time from the moment penetrometer 10 contacts the **ocean floor** until penetrometer 10 comes to rest therein. Knowing the frequency or doppler change versus time, **depth** of **penetration** of penetrometer 10 within sea floor can be established. Thus, a plot of the acoustical attenuation of the signal from. . .

DETDESC:

DETD(22)

It . . . may be determined as well as other acoustic characteristics such as phase shift. Also, some requirements may exist for certain **ocean floors** which require **deeper penetration** than can be achieved by free falling penetrometer 10. In such cases, additional penetration may be achieved by accelerating penetrometer. . .

> d 1-4 kwic

US PAT NO: OCR DATA 3,576,220 [IMAGE AVAILABLE] L5: 1 of 4

SUMMARY:

BSUM(14)

AMiTRACT: A **deep-penetrating** ocean bottom soil sampler employing a plurality of telescoping tubes that may be sequentially driven downwardly to penetrate the **ocean floor** a distance equal to approximately one-half of the cumulative length of the tubes. As the sampler with extended tubes is. . .

US PAT NO: OCR DATA 3,512,649 [IMAGE AVAILABLE] L5: 2 of 4

SUMMARY:

BSUM(26)

For the embodiment shown, it has been found that air **pressure** of ten p.s.i. is sufficient to cause **penetration** of the air through the filter **bed** and. to pass above the **water** level. This air **pressure** passing through the nozzles 14 emerges through the slots in the distributor blocks under somewhat increasing density due to the. . .

US PAT NO: OCR DATA 3,505,826 [IMAGE AVAILABLE] L5: 3 of 4

SUMMARY:

BSUM(42)

Rollers . . . Ushaped element 1. It is by these rollers that the element is seated on the pipeline 15 when it has **penetrated deep** enough into the **water bed** and is then drawn along the pipeline.

US PAT NO: OCR DATA 3,502,159 [IMAGE AVAILABLE] L5: 4 of 4

SUMMARY:

BSUM(70)

At . . . within casing 14. Thus the weight of the respective piles will ordinarily be sufficient to cause them to enter and **penetrate** the **ocean floor** for a **depth** depending upon the pile length and the composition of the floor. With the piles at a lower position pile drive. . .

=> d 1-4

1. OCR DATA 3,576,220, Apr. 27, 1971, TITLE MAY BE IN MISC FIELD; NAME MAY BE IN MISC FIELD, 175/6, 20, 58 [IMAGE AVAILABLE]

2. OCR DATA 3,512,649, May 19, 1970, ULTRA-RATE; NAME MAY BE IN MISC

FIELD, 210/274, 279, [redacted] [IMAGE AVAILABLE]

3. OCR DATA 3,505,826, Apr. 14, 1970, APPARATUS FOR EMBEDDING A PIPELINE If the pipe line lies in the desired embedd; NAME MAY BE IN MISC FIELD, 405/163; 37/323 [IMAGE AVAILABLE]

4. OCR DATA 3,502,159, Mar. 24, 1970, PILE DRIVING APPARATUS FOR SUBMERGED STRUCTURES; NAME MAY BE IN MISC FIELD, 173/193, 20, 46, DIG.1; 175/6; 405/228 [IMAGE AVAILABLE]